

REMARKS

In the Office Action dated December 19, 2006, the previously issued Final Rejection was withdrawn and new rejections posited. Applicants have carefully reviewed the Office Action and submit the amendments *supra* and remarks *infra* as a full and complete response thereto.

Applicants submit that the amendments are fully responsive to the Office Action, introduce no new matter, raise no new issues for examination and place the matter in condition for allowance or in better condition for appeal.

Applicant's have amended claims 1, 9 and 14 (the latter to correct a typographical error) and cancelled claims 7 and 12. Claims 1-6, 8-11 and 14-20 are submitted for reconsideration.

All claims had been rejected under 35 USC 112, first paragraph because the recitation in claims 1, 9 and 14 of "organic amines" was considered too all-encompassing. Applicants have restricted the scope to alkyl amines, substituted and unsubstituted. This change is believed to obviate the Examiner's concern over the vast number of heterocycles potentially encompassed by prior terminology. Alkyl amines including branched chain amines are demonstrated in Applicant's examples.

Claim 1-5, 7, 9, 12, 13 and 15-20 had been rejected under 35 USC 102 (b) or 35 USC 103 over Stockinger, U.S. Patent No. 4,218,377. Stockinger et al. disclose metal salt/amine complexes wherein the metal salt is a Zn salt of a carboxylic acid or a sulfonic acid. Substitutes may include nitrogen heterocycles such as pyrrolidones. The negative carboxyl entity, not the positive nitrogen, is the first chelating functionality.

The second component of the claimed complex is a "neutral" amine which, based upon the structure of the R₁ group, is both very bulky and somewhat polar- but not ionic.

The Examiner's attention is directed to Example 1, col. 6. At lines 38-63, the compound is described in terms of nmr shifts for C¹³ adjacent to amine nitrogens of the polyoxypropylenediamine. Based upon this information, the inventors conclude that the product is an organo metallic coordination complex (c.f.. Line 41) and not an ionic compound.

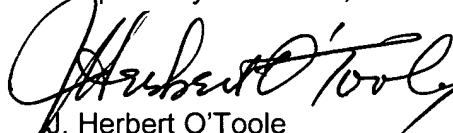
Applicant's invention is not anticipated under 35 USC 102 because the invention uses neutral alkyl amines or crown ethers, neither of which is the ionic carboxylic or sulfonic acid moiety critical to the operation of the cited reference. The result is an ionic liquid, not a coordination complex. The invention is not obvious because all components save the metal ions are different and the utilities show no overlap.

Finally, the reference compounds probably are not true liquids. In organic synthesis, there are three phases: solid, liquid and oil. Amines are notorious for their low purity and bulky molecules are difficult to crystallize. Coordination complexes are especially difficult. Note the reported elemental analysis and the lack of any attempt to triturate the oil.

In summary, the reference compounds are chemically distinct, in composition and in structure, have different properties and different utilities. Applicant's ionic liquids are neither anticipated nor is there any suggestion to synthesize these compounds for the disclosed function.

In view of these amendments and remarks, Applicants submit that this application is in condition for allowance and request reconsideration and timely passage to issue.

Respectfully submitted,

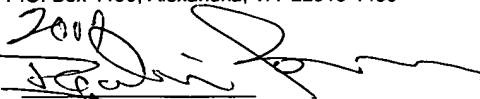


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by Jacqueline Beavers

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